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In re ARHAB, et al.

REMARKS

The Examiner is thanked for the Official Action dated October 22, 2002 and the indication of allowable subject matter in this application. The above amendment and remarks to follow are intended to be fully responsive to the issues presented in that Action.

Claims 1-44 were rejected under 35 U.S.C. §112, second paragraph, for including indefinite claim language. Applicant has amended the claims to address the issues raised by the Examiner.

Specifically, claim 1 has been amended to delete the phrase “adapted to be hydrokinetically”. In fact, the phrase did not accurately describe the structure of this invention because there is no hydrokinetic coupling of the transverse wall (3) of the casing (30) to the driving shaft.

The term “an element” of claim 1 has been replaced with the structure related to this term; namely, the “radial plate (15) of the hub (14)”.

The phrase “may be” has been removed from claim 26.

It is submitted that amended claims 1-44 conform to the requirements of 35 U.S.C. §112. No new matter has been entered.

Claims 1, 2, 5, 8-11, 15, 20 and 26-28 were rejected under 35 U.S.C. 102(b) as being anticipated by Friedmann et al. (USP 5,377,796). Claims 3, 4, 12 and 14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Friedmann et al. ‘796 in view of Ross ‘885. Claims 6, 7, 29-32 and 35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Friedmann et

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al. '796. Claim 13 was rejected under 35 U.S.C. 103(a) as being unpatentable over Friedmann et al. '796 in view of Casse et al. Claims 16-18 and 21-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Friedmann et al. '796 in view of Blomquist. These rejections are respectfully traversed in view of the following remarks.

The Examiner's strained interpretation of Friedmann '796 cannot be read to cover all of the limitations of claim 1.

US 5,377,796 to Friedmann et al. (Friedmann et al. '796) does not disclose "... a friction means (60) [that] acts between a face of the piston (4) opposite the second surface (2) and a radial plate (15) of the hub (14) ...". The Examiner has identified the face of the piston as being the surface of element 435 of Friedmann '796 that faces the disc 436. However, the so-called "friction means" identified by the Examiner (as element 449) is not disposed between the face of the piston opposite the second surface (noted by the Examiner as the left-hand side of the piston 435). Additionally, the so-called friction means identified by the Examiner is does not act between the face of the piston and the radial plate of the hub.

Moreover, Applicant asserts that Friedmann '796 does not disclose the transverse wall forming part of a casing as set forth in claim 1. Therefore, Friedmann et al. '796 cannot teach or render obvious the "... a lock-up clutch interposed between said turbine wheel (12) and said transverse wall (3)" of the casing (30). Additionally, Friedmann et al. '796 fails to teach an arrangement "comprising a piston (4) carrying a second surface (2), which lies facing the first surface (1) for coupling the second surface (2) releasably to the transverse wall (3)" of the casing as set forth in independent claims 1 and 26.

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In Friedmann '796, the structure is "inverse" as the piston slides axially in the direction of the turbine wheel and not of the transverse wall.

Also, in Friedmann et al. '796 the element 449 is a washer - not a friction means. The function of the washer 449 is to couple the piston and the hub in rotation. The washer 449 of Friedmann et al. '796 does not prevent direct contact between the piston 4 and the hub 14.

Lastly, claim 26 specifically states that the friction means is "carried by said at least one rivet (59)", wherein the turbine wheel (12) includes an annular ring (13) which is fixed to the hub (14) by means of the at least one rivet (59). Friedmann '796 does not disclose this structure. Element 451 of Friedmann does not fix an annular ring to the hub of Friedmann '796 as required by claim 26.

In view of these facts, Friedmann '796 does not disclose the features of claim 1 or 26.

Regarding US Patent 4,177,885 to Ross, Ross '885 discloses a hydrokinetic apparatus but fails to disclose any friction means like in the present invention, the reference 92 relates to "a low force spring" (see col. 2, lines 52 to 58) functioning not to act as a friction means but to assist the piston in the initial engagement of the clutch.

The piston 44 is splined at 46 on the hub 34 of the turbine 18. There is no relative movement in rotation between the turbine and the piston as the piston is coupled in rotation with the hub (and not for example with the transverse wall thanks to tongues 23 like in the embodiment shown in the application drawings). Therefore, no friction means is necessary in such arrangement. Clearly, Ross '885 does not disclose the features of claim 1.

Because the independent claims 1 and 26 are allowable over the art of record, the

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corresponding dependent claims are likewise allowable because the rejections under 35 U.S.C. §103(a) cannot be sustained. The balance of the prior art fails to teach or render obvious the deficiencies of the prior art as discussed above.

Because none of the prior art of record teaches or suggests the arrangement of the instant invention, it is respectfully submitted that this application is in condition for allowance and notice to that effect is earnestly solicited. Should the Examiners believe additional discussion would advance the prosecution of the instant application, they are invited to contact the undersigned at the local telephone number listed.

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Title: HYDROKINETIC COUPLING APPLIANCE, IN PARTICULAR FOR MOTOR VEHICLE

APPENDIX OF AMENDMENTS

IN THE CLAIMS

Please amend claims 1, 17 and 26 as follows.

1. Hydrokinetic coupling apparatus, comprising a casing (30) having a transverse wall (3) [adapted to be hydrokinetically] coupled in rotation to a driving shaft, a turbine wheel (12) mounted within the casing (30) and fixed to a hub (14) which is adapted to be coupled in rotation to a driven shaft, a fixed first surface (1) on the transverse wall (3) of the casing (30), and a lock-up clutch interposed between said turbine wheel (12) and said transverse wall (3) and comprising a piston (4) carrying a second surface (2), which lies facing the first surface (1) for coupling [it] the second surface (2) releasably to the transverse wall, wherein a friction means (60) acts between a face of the piston (4) opposite the second surface (2) and [an element] ^{an element} a radial plate (15) of the hub (14) situated in facing relationship thereto, wherein the piston (4) is so configured as to carry the friction means (60).

17. Hydrokinetic coupling apparatus according to Claim 16, wherein the piston (4) has a projecting portion (1066) with a bead (1166)[, which may be of divided form,] engaged in a hole of the friction means (60).

26. Hydrokinetic coupling apparatus, comprising a casing (30) having a transverse wall (3) [adapted to be hydrokinetically] coupled in rotation to a driving shaft, a turbine wheel (12) mounted within the casing (30) and fixed to a hub (14) which is adapted to be coupled in rotation to a driven shaft, a fixed first surface (1) on the transverse wall (3) of the casing (30), and a lock-up clutch interposed between said turbine wheel (12) and said transverse wall (3) and comprising a piston (4) carrying a second surface (2), which lies facing the first surface (1) for coupling [it] the second surface (2) releasably to the transverse wall (3), wherein the turbine wheel (12) includes an annular ring (13) [which may be of divided form and] which is fixed to the hub (14) by means of at least one rivet (59), and wherein a friction means (60) acts between the hub (14) and the piston (4), and wherein the friction means (60) is carried by said at least one rivet (59).